ENGLISH

Matrox® **Maevex™ 5100 Series**

Maevex 5150 Encoder • Maevex 5150 Decoder

User Guide

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Graphics for Professionals

Contents

About this user guide 5

Using this guide 5

More information 5

Overview 6

Features 6

Hardware supplied 7

Hardware required (sold separately) 7

Optional hardware (sold separately) 7

Installation overview 8

Connecting your Maevex Encoder and Decoder units 9

How it works 9

Setting up your Maevex environment 10

Adding an encoder or a decoder unit to your environment 10

Managing your passwords 10

Environment password 10

Unit password 10

Changing a password 11

Connection overview 12

Maevex 5150 Encoder – Back 12

Maevex 5150 Decoder – Front 13

Maevex 5150 Decoder – Back 13

Connector descriptions 14

Step-by-step connection setup 15

Maevex 5150 Encoder 15

Maevex 5150 Decoder 18

Daisy chaining your decoder units 20

Resetting your unit 21

Validating your Maevex setup 22

Description of LEDs 22

Network connector 22

Encoder/Decoder 22

Validating network discovery 23

Multiple subnet support 23

Validating video and audio quality 23

Using pass through or confidence preview 24

Installing Matrox PowerStream 25
Before you begin 25
Obtaining Matrox PowerStream 25
Selecting the proper software 25
Installing your software 25
Matrox PowerStream software 26
Accessing Matrox PowerStream 26
Accessing Matrox PowerStream help 26
Troubleshooting 27
What to do if you have a problem 27
Common problems and solutions 27
Product information 38
Specifications 38
Maevex Encoder 38
Maevex Decoder 39
Power consumption and supply voltage 39
Audio 40
Environmental 40
Networking support 41
Notes 41
Digital flat panel and source compatibility 41
Appendix A – Providing adequate airflow 42
Appendix B – Mounting your units 43
Mounting guidelines 43
Mounting your Maevex encoder or decoder units horizontally 43
Maevex encoder 44
Maevex decoder 44
Mounting your Maevex decoder units vertically 45
Left side mount 45
Right side mount 46
Mounting your Maevex decoder units on VESA mounts 46
Mounting to a 75 or 100 mm mounting space 47
Mounting to a 200 mm mounting space 47
Customer support 48
Matrox Web 48
Technical support 48

Information we need 48
Firmware package 48
View your warranty information 48
Register your Matrox product 49

About this user guide

Your Matrox user guide provides information on connecting and using your Matrox hardware. For information on Matrox PowerStream software features and options, see the help file included with your PowerStream software.

Using this guide

This guide assumes you're familiar with basic functions like click, right-click and double-click, and that you're familiar with the basics of the operating system you're using. Also, we use the following conventions:

- **Bold** for headings and for references to text that appears on-screen.
- *Italics* for file names, paths, publication titles, and new terms.
- ***Bold Italics*** for emphasis.
- Keyboard keys in square brackets, with a plus sign separating keys that you press simultaneously. For example: press [Ctrl]+[Alt]+[Del] to start Windows Task Manager.
- Arrows ("→") to separate ordered directions. For example, "click **OK** → **Close** → **OK**" is the same as "click **OK**, then click **Close,** then click **OK**".
- Green for cross-references. If you're viewing online, click green text to jump to what's being referenced.

More information

We provide additional information in help and *Readme* files. Be sure to check for any last-minute release notes included with your product. Also, check the Matrox Web site (www.matrox.com/graphics) for the latest Matrox software, technical support, and product information.

Overview

Thank you for purchasing a Matrox Maevex Series product. Matrox Maevex is a video distribution over IP solution that consists of one or more encoder units and one or more decoder units capable of extending video and audio over a standard IP network.

Features

- Your Matrox Maevex products support the following features:
- Wide-screen and standard aspect ratios
- Downscale streams locally before distributing them over the network to lower bandwidth consumption
- Scaling and cropping features enable flexible display of source content on the Decoder output
- Open encoding to enable non-Maevex software decoding through VLC® player software
- Standard 10/100/1000Mb Ethernet networks
- Decoder integrated network switch allows for Maevex daisy chaining, network extension, and redundant network topology
- Matrox PowerStream software allows for multiple instances and remote management of the Maevex network
- HDMI® or analog audio support
- Pass through and confidence preview on Encoder
- PowerStream auto-detection and discovery of Maevex units on subnet (DHCP server required)
- Password protection

For more information on PowerStream controls and options, see Matrox PowerStream help.

Hardware supplied*

- **Maevex 5150 Encoder –** Encoder unit, 1 power supply, 1 DVI to HDMI adapter, 1 CAT 5e network cable (6 ft/1.8 m), 1 analog audio cable.
- **Maevex 5150 Decoder –** Decoder unit, 1 power supply.

Hardware required (sold separately)

Maevex 5150 Encoder –

- Shielded HDMI cable (Source to encoder unit)

Maevex 5150 Decoder –

- Network cable (CAT 5, 5e, 6, or 7)
- Shielded HDMI cable

Optional hardware (sold separately)

Depending on your connection setup, you may also need any of the following hardware:

Maevex 5150 Encoder –

- Network cable (CAT 5, 5e, 6, or 7)
- Shielded HDMI cable (Encoder unit to monitor)
- VGA cable
- Analog audio cable (Audio out)

Maevex 5150 Decoder –

- Analog audio cable (Audio out)
- DVI to HDMI adapter

* The hardware supplied with your Matrox product may vary depending on the SKU or part number of your product. For more information, contact your Matrox representative.

Installation overview

To install your Matrox product:

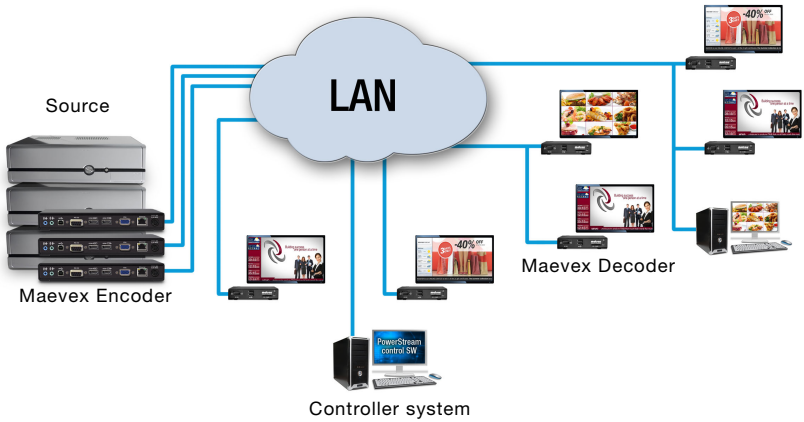
1. Connect your product – see "Connecting your Maevex Encoder and Decoder units", page 9.
2. Validate your setup – see "Validating your Maevex setup", page 22.
3. Install the software – see "Installing Matrox PowerStream", page 25.

Connecting your Maevex Encoder and Decoder units

How it works

Matrox Maevex Encoder and Decoder units work in conjunction to provide unicast (one-to-one) or multicast (one-to-many) streaming over an IP network. Using Matrox PowerStream software, you can manage your entire Maevex network from a single system.

A Matrox Maevex environment is made up of four (4) elements connected to a network:



- **Source** – A video source connected to an encoder. For example, a source can be a media player, computer system, or camera.
- **Maevex Encoder** – An encoder is needed for each source in your Maevex environment. An encoder can transmit to a single decoder or to multiple decoders.
- **Maevex Decoder** – A decoder is needed for each output in your environment. A computer system using VideoLAN® VLC media player as a video player can also be used to decode the signal from an encoder.
- **Controller system** – A system connected to the network and running Matrox PowerStream. A controller system can also be a source.

Setting up your Maevex environment

Before connecting your units, we recommend you:

- Have a DHCP (Dynamic Host Configuration Protocol) server
- Have a DNS (Domain Name System) server
- Have a controller system
- Use at least one output device (monitor or HDTV) to preview your video sources
- Make sure all devices (Maevex units and controller system) are on the same subnet
- Have at least one video source

Adding an encoder or a decoder unit to your environment

To avoid potential problems, ***before*** you add a decoder or an encoder unit to your Maevex environment, perform a factory reset of your unit to reset the IP address, password, and any other settings that may prevent you from using the unit in your environment. For more information, see "Resetting your unit", page 21.

Managing your passwords

In a Maevex environment, your PowerStream software, Maevex Encoder unit, and Maevex Decoder unit use passwords for secure communication. There are two types of passwords: the environment password and the unit password. These passwords are managed through PowerStream.

Environment password

A Maevex environment has a single password that allows PowerStream access to the units in that environment. An environment password ***is case-sensitive*** and can be between 6 and 8 alphanumeric characters long.

When you start PowerStream for the first time, you need to provide the environment password.

- In a ***new environment***, the environment password is used for all the units detected by PowerStream.
- In an ***established environment***, use the password already entered for that environment.

Unit password

Each unit has its own password.

When a new unit is added to the environment, it has no password. You need to manually update that unit password to match the environment password.

If the environment password doesn't match a unit password, that unit is listed as **Access denied**. Also, you won't be able to access the properties of that unit.

Changing a password

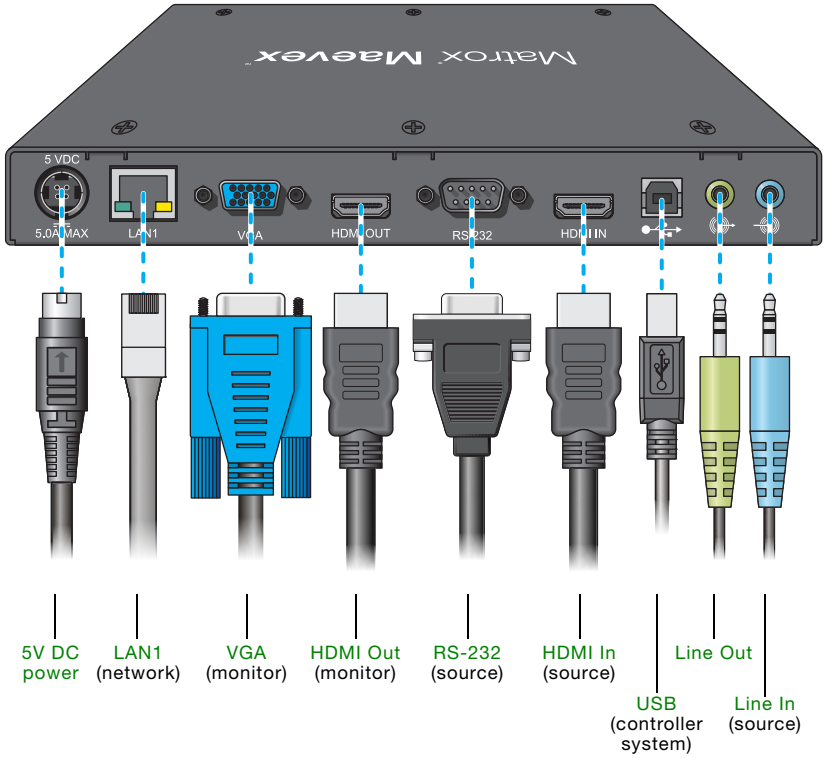
If a unit in your environment is listed as **Access denied** in PowerStream, you must change the unit password to match the environment password. To change the password for one unit, click the **Change Password** icon ( ) in the upper margin of the unit tile.

If all the units in your environment are listed as **Access denied**, you need to change your environment password. To change the password for all your units, open the **Settings** panel, then click **Change Password**.

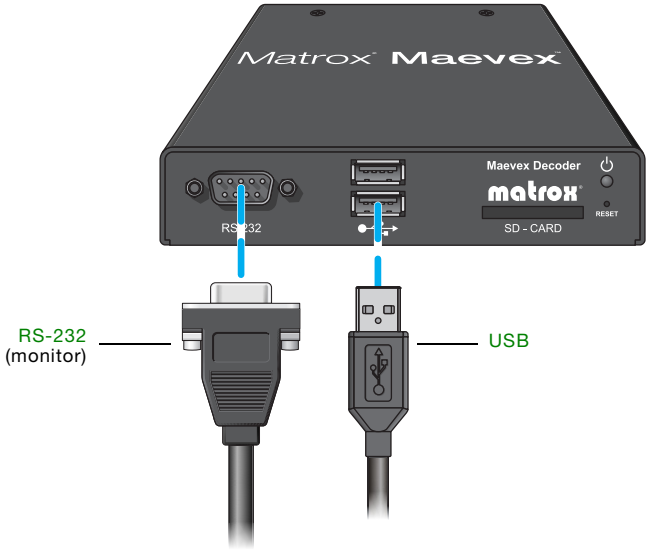
For accessible units, changing the environment password also changes the unit password to the new environment password.

Connection overview

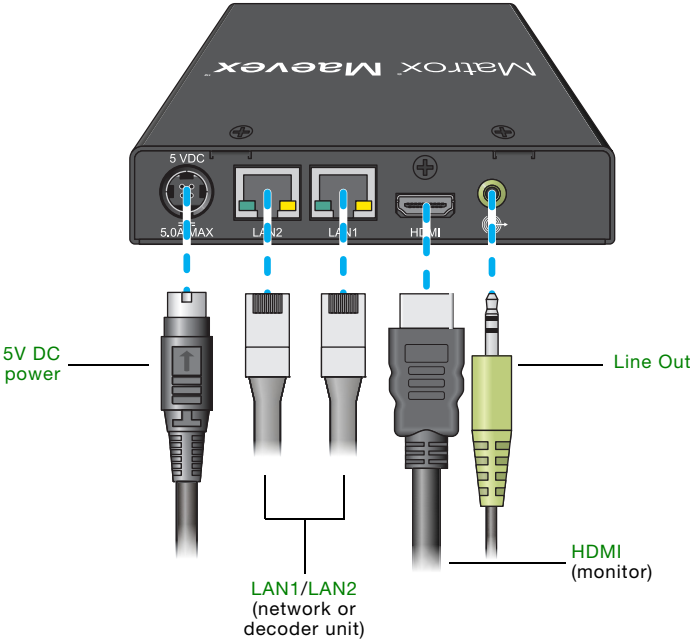
Maevex 5150 Encoder – Back



Maevex 5150 Decoder – Front



Maevex 5150 Decoder – Back



Connector descriptions

Connector	Encoder	Decoder	Description	Required encoder connection
5V DC power	✓	✓	Connect the 5V DC power supply included with your product to this connector. While the 5V DC power supply is connected to the unit and electrical socket, the power LED (⏻) is active (not black). For more information on LEDs, see "Description of LEDs", page 22.	
HDMI		✓	Connect a digital monitor to this connector. If your digital monitor has a DVI connector, you need an HDMI to DVI-D adapter to connect your monitor to this connector. **Note:** To connect to this connector, you need a shielded HDMI cable.	
HDMI In	✓		Connect your video source to this connector. If your video source doesn't support HDMI output, use an HDMI adapter to connect it to your encoder unit. If your video source has a DVI connector, use the DVI to HDMI adapter included with your Maevex product to connect it to your encoder unit. **Note:** To connect to this connector, you need a shielded HDMI cable.	
HDMI Out	✓		**Optional** – Connect a digital monitor to this connector. If your digital monitor has a DVI connector, you need an HDMI to DVI-D adapter to connect your monitor to this connector. **Note:** To connect to this connector, you need a shielded HDMI cable.	
LAN1	✓	✓	Connect a network cable to this connector. **Note:** You can ***only*** use the second network connector on the decoder to daisy chain decoder units.	
LAN2		✓		
Line In	✓		**Optional** – Connect the analog audio output of your video source to this connector. If you're using HDMI audio input, this connector is disabled.	
Line Out	✓	✓	**Optional** – Connect your analog audio output device (such as speakers) to this connector.	Line In or HDMI In with audio
RS-232	✓	✓	*Currently unsupported.*	
SD™ Card		✓	*Currently unsupported.*	

Connector	Encoder	Decoder	Description	Required encoder connection
USB	✓	✓	*Currently unsupported.*	
VGA	✓		**Optional** – Connect an analog monitor to this connector. For local viewing of uncompressed video from your video source.	

Step-by-step connection setup

This section guides you through the step-by-step connection setup of your Maevex 5150 Encoder and Decoder units.

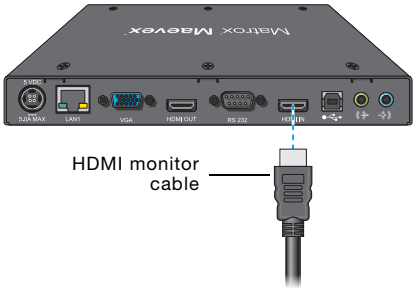
Maevex 5150 Encoder

1 Connect your video input

Connect your video source to the **HDMI In** connector on your encoder unit.

If your video source doesn't support HDMI output, use an HDMI adapter to connect your video source to your encoder unit.

If your video source has a DVI connector, use the DVI to HDMI adapter included with your Maevex product to connect your video source to your encoder unit.

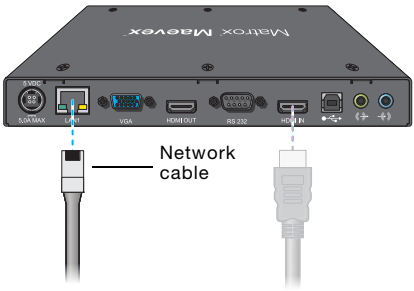


Note: To connect a source to this connector, you need a shielded HDMI cable.

If your video source uses a display resolution higher than 720p60, we recommend you use a certified high-speed HDMI cable.

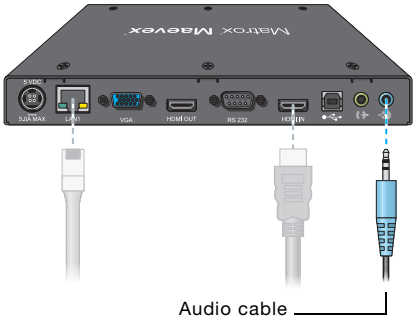
2 Connect to your network

Connect a network cable to the **LAN 1** connector on your encoder unit.



3 Connect your analog audio input (optional)

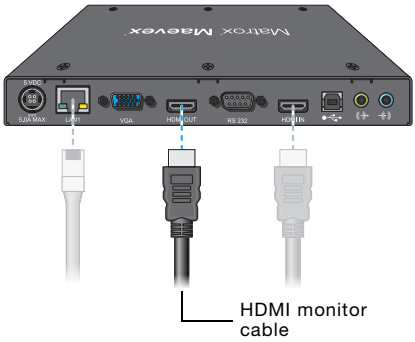
Connect the analog audio output of your video source to the **Line In** ( ) connector on your encoder unit.



4 Connect your video output (optional)

If you're connecting a digital monitor to your unit, connect the monitor cable to the **HDMI Out** connector on your encoder unit.

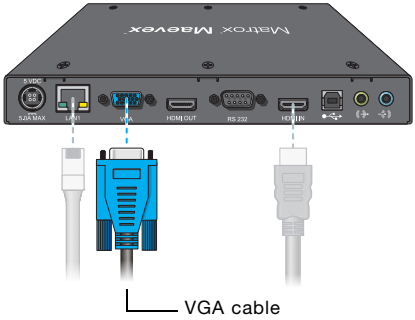
If your monitor doesn't support HDMI output, use an HDMI adapter to connect it to your encoder unit.



Note: To connect your monitor to this connector, you need a shielded HDMI cable.

If the video output of your unit uses a display resolution higher than 720p60, we recommend using a certified high-speed HDMI cable.

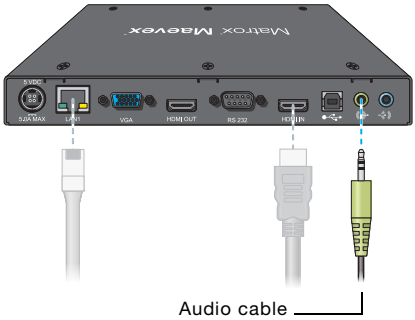
If you're connecting an analog monitor to your unit, connect your monitor cable to the **VGA** connector on your encoder unit.



> **Note:** In PowerStream, while your encoder is set to **Pass through** as the local output method, the VGA connector is disabled.

5 Connect your analog audio output (optional)

Connect your analog audio output device (such as speakers) to the **Line Out** ( ) connector on your encoder unit.

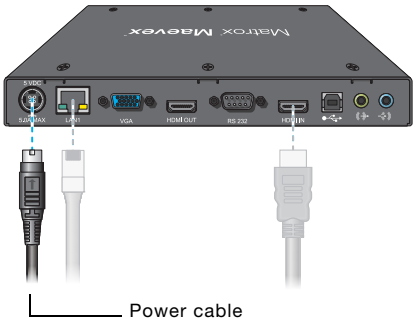


> **Note:** When PowerStream is set to pass through as the local output method, this connector only outputs audio received by the **Line In** connector.

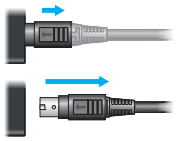
6 Connect your power supply

Connect your power supply included with your product to the **5VDC** connector on your encoder unit. While the 5V DC power supply is connected to the unit and electrical socket, the power LED (⏻) is active (not black).

For more information on LEDs, see "Description of LEDs", page 22.



> **WARNING:** To avoid damaging the power connector on your unit or on your power cable when unplugging a unit, firmly hold the power connector, pull back the connector on the cable, then carefully remove the power cable.



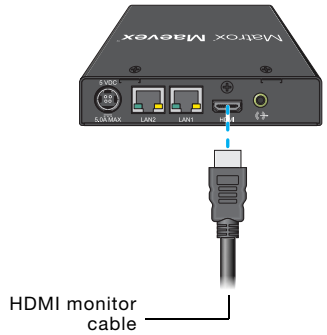
After connecting your Maevex encoder unit, we recommend you validate your connection setup before you continue (see “Validating your Maevex setup”, page 22). After you validate your setup, install your Matrox software (see “Installing Matrox PowerStream”, page 25).

Maevex 5150 Decoder

1 Connect your video output

Connect a digital monitor to the **HDMI** connector on your decoder unit.

If your digital monitor doesn’t support HDMI output, use an HDMI adapter to connect it to your decoder unit.

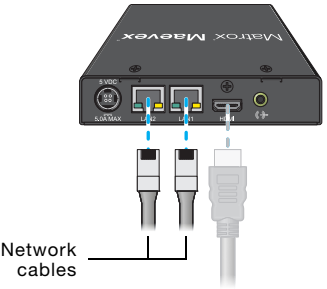


Note: To use this connector, you need a shielded HDMI cable.

If the video output of your unit uses a display resolution higher than 720p60, we recommend using a certified high-speed HDMI cable.

2 Connect to your network

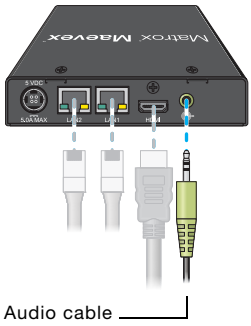
Connect a network cable to either the **LAN 1** or **LAN 2** connector on your decoder unit.



Note: You can ***only*** use the other network connector on your decoder to daisy chain decoder units. For more information, see “Daisy chaining your decoder units”, page 20.

3 Connect your analog audio output (optional)

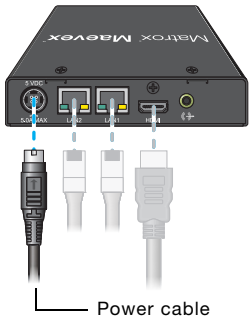
Connect your analog audio output device (such as speakers) to the **Line Out** ( ) connector on your decoder unit.



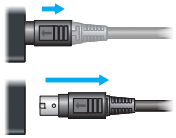
4 Connect your power supply

Connect your power supply included with your product to the **5VDC** connector on your decoder unit. While the 5V DC power supply is connected to the unit and electrical socket, the power LED (⏻) is active (not black).

For more information on LEDs, see "Description of LEDs", page 22.



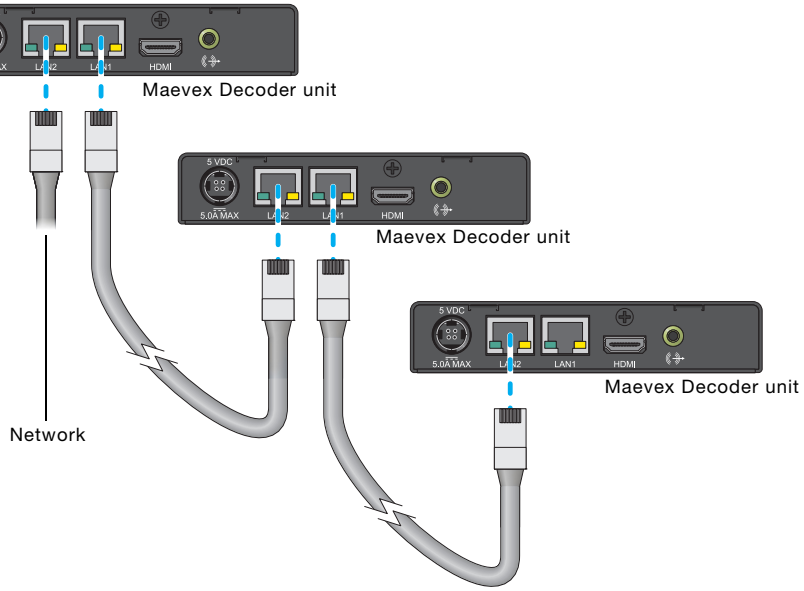
WARNING: To avoid damaging the power connector on your unit or on your power cable when unplugging a unit, firmly hold the power connector, pull back the connector on the cable, then carefully remove the power cable.



After connecting your Maevex decoder unit, we recommend you validate your connection setup before you continue (see "Validating your Maevex setup", page 22). After you validate your setup, install your Matrox software (see "Installing Matrox PowerStream", page 25).

Daisy chaining your decoder units

You can daisy chain the network connections for your decoder units by connecting one decoder to another.



When daisy chaining decoders, consider the following:

- Some DHCP servers may encounter problems when assigning an IP address to a new decoder daisy chained to an existing decoder in your Maevex environment. To avoid potential problems, we recommend you first connect a new decoder directly to the network. You can daisy chain the new decoder to a decoder in your Maevex environment ***after*** the decoder is assigned an IP address through DHCP.
- When daisy chaining network connections, the maximum number of decoders connected together is ten (10). Depending on your hardware and network settings, the number of decoders you can daisy chain on the same network jack may be lower.

Resetting your unit

To reset a Decoder or Encoder unit, press and hold the **Reset** button on your unit with the tip of a paper clip:

- **Reboot** – Holding for ***less than 2 seconds*** reboots your unit and keeps your settings. This ***keeps all*** your unit settings, including the IP address and password.
- **Factory reset** – Holding for ***more than 5 seconds*** (until the LED turns amber) reboots your unit and restores the factory settings. This ***resets all*** unit settings, including the IP address and password.

Validating your Maevex setup

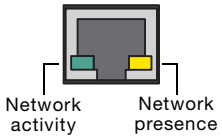
After connecting your Maevex units, we recommend you validate your connection setup, network discovery, and the quality of your audio and video sources before you continue.

Description of LEDs

The network connector LEDs and power LED (⏻) on your Maevex units provide information that can help you troubleshoot your Matrox product.

Network connector

The network connectors on your Matrox Encoder and Decoder unit use indicator lights (LEDs) to provide information on the network activity and presence. The following describes the different network connector LEDs.



LED color	Network activity	Network presence
No LED (black)	No data transfer in progress or no network detected.	No communication established.
Green (flashing)	Data transfer in progress.	—
Orange	—	Network communication established.

Encoder/Decoder

The power LED (⏻) on your Matrox Encoder or Decoder unit provides information on the status of your unit. The following describes the power LED on your Maevex unit.

LED color	Encoder	Decoder
No LED (black)	Unit isn't powered.	Unit isn't powered.
Green/Red (flashing)	Unit is initializing.	Unit is initializing.
Green	Unit is ready.	Unit is ready.
Green (flashing)	Encoding and streaming.	Decoding network stream.
Red (flashing)	No valid audio/video input signal detected.	Unit isn't in use.
Red	Fatal error detected.	Fatal error detected.
Amber	Unit reset to factory default. Unit requires maintenance.	Unit reset to factory default. Unit requires maintenance.
Amber (flashing)	Configuring or updating firmware.	Configuring or updating firmware.

Validating network discovery

Maevex units are initially assigned their IP addresses through DHCP (Dynamic Host Control Protocol). After connecting your devices, we recommend verifying that all your devices are discovered by the network.

Windows 8/7 – To make sure all your units are discovered by the network:

- **Windows 8** – From the **Start** screen, go to **All Apps → Windows System → File Explorer → Network**. Under **Other Devices**, make sure all the Maevex units connected are listed.
- **Windows 7** – Click **Start → Acessories → Windows Explorer → Network**. Under **Other Devices**, make sure all the Maevex units connected are listed.

If prompted to enable network discovery and file sharing on your network when validating network discovery, enable these two features by clicking on the prompt at the top of your Windows Explorer window. These two features must be enabled for PowerStream to detect Maevex units on your subnet.

After validating your connection setup, install Matrox PowerStream software (see "Installing Matrox PowerStream", page 25).

Multiple subnet support

Controller systems and computers can detect Maevex units in the same subnet through the UPnP (Universal Plug and Play) protocol. If you have units in different subnets of your network, you need to validate network discovery in each subnet separately. For more information on using Maevex units in different subnets in the same Maevex environment, see *Assigning an IP address* in Matrox PowerStream help.

Validating video and audio quality

Your decoder unit can only output video and audio as good as the quality received by your encoder.

To validate the video and audio quality of your source and content:

- Connect the source directly to the monitor and audio output device that will be used by your decoder.
- Use a different source to preview your content.
- Use PowerStream to change the local output method on your encoder to **Use pass through**.

To validate the source capture by your encoder and your local output settings:

- Use PowerStream to change the local output method on your encoder to **Use confidence preview**.

Using pass through or confidence preview

For your encoder, PowerStream has two local output options:

- **Pass through –** When using pass through, your encoder outputs the video and audio signals of your source directly to your monitor and audio output device. While this is enabled, the local output settings of your encoder are disabled.

  Because the signal is direct from the source to the output devices:

  - There's no video output on the VGA connector (analog video output connector) since there's no corresponding analog input on the encoder.
  - If the HDMI output device connected to your encoder doesn't support audio output, your HDMI source may disable its audio output. Since no audio is received at input, there's no audio for the encoder and all decoders connected to this encoder.

- **Confidence preview –** When using confidence preview, your encoder uses the PowerStream video and audio local output and capture settings for your encoder to output to your video and audio output devices.

  The local output settings allow you to:

  - Scale the video output to fit the resolution of your video output device
  - Correct image appearance
  - Adjust audio levels

The local output of an encoder isn't the result of decoding its own encoded video and audio stream.

Installing Matrox PowerStream

This section describes how to install Matrox PowerStream software for ***Windows® 8***, ***Windows® Server® 2012***, ***Windows® 7***, and ***Windows® Server® 2008 R2***.

Before you begin

- If a version of Matrox PowerStream software is already installed on your system, we recommend you uninstall it before installing a newer version.
- You may need administrator rights to install or uninstall certain software. For more information, see Windows documentation or contact your system administrator.

Obtaining Matrox PowerStream

Matrox makes the latest PowerStream software available on the Matrox Technical Support Web site (www.matrox.com/maevexsw).

Selecting the proper software

Matrox makes available a unified version of the software (32- and 64-bit). The proper version installs depending on your operating system.

Installing your software

To install the software for your Maevex product, run the installation program for your software package. Follow the on-screen instructions.

Matrox PowerStream software

Matrox PowerStream software enables you to remotely control, manage, and update your Maevex units from a controller system in your Maevex environment.

Note: To assign an initial IP address to your units, a DHCP (Dynamic Host Configuration Protocol) server is required.

Accessing Matrox PowerStream

Windows 8/7 – To access the main interface of PowerStream:

- **Windows 8** – From the **Start** screen, click **PowerStream**.
- **Windows 7** – Click **Start** → **All Programs** (or **Programs**) → **Matrox Graphics*** → **PowerStream**. (* Depending on your version and configuration of Windows, this part of the step may not be necessary.)

Accessing Matrox PowerStream help

For information on Matrox PowerStream features and options, see the help files included with your PowerStream software.

Windows 8/7 – To access the Matrox PowerStream help:

- **Windows 8** – From the **Start** screen, click **PowerStream Help file**.
- **Windows 7** – Click **Start** → **All Programs** (or **Programs**) → **Matrox Graphics*** → **PowerStream help file**. (* Depending on your version and configuration of Windows, this part of the step may not be necessary.)

Troubleshooting

What to do if you have a problem

If you experience problems with your Matrox product:

- Make sure you're using the correct connectors, and that all connectors are properly fastened. For more information, see "Connecting your Maevex Encoder and Decoder units", page 9.
- Review the documentation provided with your Matrox product, including the information in this section, to see if your problem is already addressed. For information on Matrox PowerStream software features and options, see the help file included with your PowerStream software.

If your problem persists, contact Matrox. For more information, see "Customer support", page 48.

Common problems and solutions

This section addresses common problems that could prevent you from using your units.

Problem **Maevex unit not discovered on the network**

Cause Your Matrox product may not be properly connected or may be on a different subnet.

Solution Verify the connection and status LEDs on your Matrox product (see "Description of LEDs", page 22). Also, make sure your Matrox product is properly connected and that all connectors are properly fastened.

Cause Your unit may be on an external network or on a different subnet.

Solution Make sure your units and controller system are on the same subnet (see "Validating network discovery", page 23). For more information, contact your network administrator.

Solution If your unit is on a different subnet than your controller system, you must manually add the unit in your PowerStream interface. For more information on manually adding units, see PowerStream help. To obtain the IP address of your unit, see "Validating network discovery", page 23.

Cause Network discovery and file sharing may not be enabled on your system.

Solution Enable network discovery and file sharing on your system.

Windows 8/7 –

1. Windows 8 – Open the **Settings** charm, click **Control Panel**.

   Windows 7 – Click **Start** → **Settings** * → **Control Panel**. (* Depending on your version and configuration of Windows, this part of the step may not be necessary.)

2. Click **Network and Internet** * → **Network and Sharing Center** → **Change advanced sharing settings**. (* Depending on your version and configuration of Windows, this part of the step may not be necessary.)

3. Under your current profile, make sure the following options are selected:

   - **Turn on network discovery**
   - **Turn on file and printer sharing**

4. If you make changes to your current profile settings, click **Save changes**.

Cause You may not be using the latest version of Matrox PowerStream software or your Matrox firmware may be out of date.

Solution Make sure all Matrox software is up to date.

Problem Can't access Maevex unit through PowerStream (listed as 'Access Denied')

Cause The unit may be a recent addition to your environment and has no password.

Solution Try changing the password for that unit (see "Changing a password", page 11). If it's a new unit, the status for that unit automatically changes to **Ready** (Green).

Cause The unit password doesn't match your environment password.

Solution Try a factory reset of your unit (see "Resetting your unit", page 21).

Solution Contact your Maevex environment administrator to obtain your unit password, then change the unit password to match your environment password in PowerStream. For more information, see "Managing your passwords", page 10.

Cause Two instances of PowerStream may be running on different controller systems, using different environment passwords.

Solution Change your password so that both instances of PowerStream are using the same environment password. Using different passwords in the same environment isn't supported. For more information, see "Managing your passwords", page 10.

Solution If one of the passwords is unknown, uninstall PowerStream from one of the controller systems, and then reinstall it. When prompted, enter your existing environment password. You also need to perform a factory reset on all unaccessible units .

Problem Power indicator light is red (solid)

Cause Your Matrox product encountered an error.

Solution Try a factory reset of your unit (see "Resetting your unit", page 21). If the power indicator light on your unit is still red after you reset your unit, contact Matrox Technical Support (see "Customer support", page 48).

Problem No picture or output at all

Cause The unit may not have started encoding or decoding.

Solution In PowerStream, make sure the encoding or decoding process has started:

- **Encoder** – Listed as **Awaiting connection** or **Encoding**.
- **Decoder** – Listed as **Decoding**. If the decoder isn't decoding, verify that the correct URL is being used in the **Stream address** box. If the URL in **Stream address** doesn't correspond to the URL of an encoder or if the encoder isn't encoding, attempting to start decoding results in an error.

For more information on the status of your units, see Matrox PowerStream help.

Cause The local output settings of your unit may be improperly set.

Solution Adjust your encoder and decoder settings. Use PowerStream software to:

- Disable the **Force display mode** option.
- Check your **Image appearance** settings (brightness, contrast, and so on). Image appearance values that are too high or too low may cause the image to disappear.

Cause Your monitor video controls may be improperly set.

Solution Adjust your monitor controls (brightness, contrast, and so on). For more information, see your monitor manual.

Cause Your monitor may not be properly connected (the connectors aren't properly fastened or the monitor power cable isn't firmly in place) or may have been disconnected.

Solution Make sure you're using the correct connectors, that all connectors are properly fastened, and that all power cables are firmly in place.

Cause If your monitor supports multiple input sources (analog/digital), it may be configured to use the wrong source.

Solution Make sure your monitor is using the correct input source. For more information on selecting the input source for your monitor, see your monitor documentation.

Cause The HDMI cable may have been connected to your encoder or decoder output ***after*** the encoding or decoding process started.

Solution In PowerStream, stop, then start the encoding or decoding process again.

Problem Wrong color balance

Cause The local output settings of your encoder or decoder unit may be improperly set.

Solution Adjust your PowerStream settings. Check your **Image appearance** settings (brightness, contrast, and so on).

Cause Your monitor video controls may be improperly set.

Solution Adjust your monitor controls (brightness, contrast, and so on). For more information, see your monitor manual.

Cause Your monitor may not be properly connected (the connectors aren't properly fastened or the monitor power cable isn't firmly in place) or may have been disconnected.

Solution Make sure you're using the correct connectors, that all connectors are properly fastened, and that all power cables are firmly in place.

Problem Screen image is cropped, appears off-center, or uses a portion of the screen

Cause You may be using a lower display resolution than what your monitor supports. If your monitor supports display scaling, the image on your screen may appear blurry. If display scaling isn't supported, the display may use only a portion of your screen.

Solution In PowerStream, adjust **Force display mode** to use the highest display resolution available. This generally results in better image quality.

Cause PowerStream may be configured to modify the size of the video source.

Solution Adjust your PowerStream settings:

- **Encoder** – Enable the **Use specific video size** option, then specify the width and height of your video to match the aspect ratio of your source.

- **Decoder** – Make sure the settings for **Crop video** are set to properly show the video.

For more information, see Matrox PowerStream help.

Problem Encoder only – Using 'pass through', the screen is unusable (blank or blinking screen)

Cause Your monitor may be incompatible with the display mode used by your source.

Solution Make sure your monitor and your source support similar display modes. To validate the quality of your source, see "Validating video and audio quality", page 23.

Solution Change the display mode used by your source.

Solution Try using a different monitor.

Cause If your monitor and source aren't properly synching, your screen may go blank for a few seconds.

Solution In PowerStream, set the local output to **Use confidence preview**.

Solution Try using a different monitor.

Solution Make sure all Matrox software is up to date.

Problem Decoder loses connection to the encoder

Cause The encoder's settings may have changed (for example, the streaming address or IP address). A change may occur dynamically or after a power failure.

Solution Adjust your PowerStream settings:

- **Decoder** – Make sure the URL used in the **Stream address** box matches the stream address used by the encoder.

For more information, see Matrox PowerStream help.

Cause The encoder may have stopped transmitting.

Solution Make sure your encoder is transmitting.

Problem PowerStream may be slow to start (several minutes)

Cause Your controller system may not have access to a DNS (Domain Name System) server.

Solution Configure your system to use a fixed IP address (such as local host – 127.0.0.1) as its DNS server.

Windows 8/7 –

1. **Windows 8** – Open the **Settings** charm, click **Control Panel**.

   Windows 7 – Click **Start → Settings** * **→ Control Panel**. (* Depending on your version and configuration of Windows, this part of the step may not be necessary.)

2. Click **Network and Internet** * **→ Network and Sharing Center → Change adapter settings → Local Area Connection** (double-click*) **→ Properties → Yes**. (* Depending on your version and configuration of Windows, this part of the step may not be necessary.)

3. Double-click the icon for your network adapter (such as **Local Area Connection** or **Ethernet**).

4. Double-click **Internet Protocol Version 4 (TCP/IPv4)**.

5. Select **Use the following DNS server addresses**.

6. Next to **Preferred DNS server**, enter **127.0.0.1**.

7. Click **OK → OK → Close**.

Problem PowerStream stops responding

Cause Your PowerStream software or unit may have encountered an error.

Solution Try closing, then restarting Matrox PowerStream software.

Solution Restart your controller system.

Problem In PowerStream, the Maevex unit tile is yellow (initializing) or gray (present)

Cause Your network may be slow, causing a delay in the response time from your unit.

Solution Wait a few minutes, then make sure the status of the unit was properly updated.

Cause Your PowerStream software or unit may have encountered an error.

Solution Try closing, then restarting Matrox PowerStream software.

Solution If your unit status is still yellow (initializing), try rebooting your unit. Through the Encoder or Decoder settings panel in PowerStream, click **Reboot**. You can also reboot your unit by holding the Reset button with the tip of a paper clip for ***less than 2 seconds***.

Solution Try a factory reset of your unit (see "Resetting your unit", page 21).

Problem "Web services fails" message appears after attempting to change decoder settings

Cause The decoding process may take all the decoder's resources.

Solution Stop the decoding process, make your changes, and restart the decoding process.

Solution When making changes to multiple decoders connected to the same encoder, stop the encoder, make the changes on your decoders, then restart the encoder.

Problem Black border appears around the video

Cause The aspect ratio of your video source may not match the aspect ratio of your monitor.

Solution Use PowerStream software to adjust your **Video** settings (such as enabling **Force display mode** and selecting a **Scaling** option). For more information, see Matrox PowerStream help.

Cause There may be a problem with your video source.

Solution Verify the video from your source. For more information, see "Validating video and audio quality", page 23.

Cause The border may be part of your video.

Solution Crop your video source:

1. Access the PowerStream main interface.
2. Under your decoder settings, enable the **Crop video** option.
3. Enter values to remove the borders.
4. Click **Apply** for your changes to take effect.

Cause Your source uses a display resolution bigger than the resolution used to show the video.

Solution Try configuring your source to use a different display resolution.

Cause Your monitor doesn't support display scaling.

Solution Adjust your video settings:

1. Access the PowerStream main interface.
2. Under **Size and Transformation** of the local output settings of your unit, try selecting **Stretch to display** for scaling.
3. Click **Apply** for your changes to take effect.

Problem Video appears stretched or squished

Cause There may be a problem with your video source.

Solution Verify the quality of your source. For more information, see "Validating video and audio quality", page 23.

Cause You may be encoding at a resolution that has a different aspect ratio than what your source or output is using.

Solution Try selecting a video size with the same aspect ratio as your source.

Solution Make sure **Use specific video size** is disabled.

Cause The aspect ratio of your source may not match the aspect ratio of your monitor.

Solution Adjust your video settings:

1. Access the PowerStream main interface.
2. Under **Size and Transformation** of the local output settings of your unit, try selecting **Stretch to display** for scaling.
3. Click **Apply** for your changes to take effect.

Solution If possible, set the display resolution of your source to match the aspect ratio of your monitor.

Cause You may be using a lower display resolution than what your monitor supports.

Solution In PowerStream, make sure **Force display mode** is disabled to use the highest display resolution supported by your monitor. This generally results in better image quality.

Cause PowerStream may be configured to modify the size of the video source.

Solution Adjust your PowerStream settings:

- **Encoder** – Enable the **Use specific video size** option, then specify the width and height of your video to match the aspect ratio of your source.
- **Decoder** – Make sure the settings for **Crop video** are set to properly show the video.

For more information, see Matrox PowerStream help.

Problem Image appears blurry

Cause You may be encoding at a different resolution than what your source is using.

Solution Try selecting a video size with the same aspect ratio as your source.

Solution If **Use specific video size** is enabled, try disabling it to avoid scaling by the encoder.

Cause You may be using a lower display resolution than what your monitor supports, or your monitor supports display scaling.

Solution In PowerStream, adjust **Force display mode** to use the highest display resolution available. This generally results in better image quality.

Problem Poor video quality or video is jerky (skipping or dropping frames)

> **Note:** Jerky video may be the result of slow recording. Slow recording causes frames to be dropped (frames aren't recorded). If jerky video is caused by frames that were dropped during recording, the problem can only be fixed by recapturing the video under better conditions or with different video settings.
>
> To validate the quality of your source, see "Validating video and audio quality", page 23.

Cause PowerStream may not be configured to optimize video or audio quality.

Solution When adjusting your encoder or decoder settings, we recommend starting with the default values for all your settings and modifying the settings as necessary. For more information, see Matrox PowerStream help.

Cause High network traffic may be degrading the quality of your stream.

Solution Make sure your network equipment supports the bandwidth required.

Solution Try using a dedicated network for your Maevex environment. For more information, contact your network administrator.

Solution Try using Matrox PowerStream to incease the **Network latency** of your decoder unit.

Cause There may be too many video devices between your video source and destination, or one or more of the video devices may be degrading the quality of the stream. Adapters, long cables, cable extensions, and improper connections can all affect video signal quality.

Solution If possible, use fewer connections. For example, don't use cable extensions.

Problem No sound or sound is distorted or too loud

Cause Your capture settings may not match your audio input.

Solution Make sure your capture settings are set to capture the proper audio source.

Cause Audio cables may be loose, or the audio output device may not be properly connected.

Solution Make sure you're using the correct connectors, all connectors are properly fastened, and that all power cables are firmly in place.

Cause There may be a problem with your audio source.

Solution Verify the quality of your source. For more information, see "Validating video and audio quality", page 23.

Cause The PowerStream **Audio** setting of your unit may be too low, too high, or muted.

Solution Adjust your audio settings for the best performance.

Cause If you're using pass through, your HDMI source may disable its audio output if the HDMI output device connected to your encoder doesn't support audio output. This disables the audio output for the encoder and all decoders connected to this encoder.

Solution Make sure the HDMI output device connected to your encoder supports audio output.

Solution In PowerStream, change the local output of your encoder to **Use confidence preview**.

Cause **Encoder only** – If you're using pass through, your audio output device may be connected to a connector that has no corresponding input.

Solution Make sure your audio output device is connected to the proper corresponding audio input connector (for example, **HDMI** to **HDMI in**, and **Line out** to **Line in**).

Solution In PowerStream, change the local output of your encoder to **Use confidence preview**.

Cause **Encoder only** – Your source may disable its HDMI audio output when switching from confidence preview to pass through, or vice versa.

Solution To re-enable the audio signal, try disconnecting and reconnecting your HDMI connector.

Problem Using the Line In connector on an encoder unit, sound is distorted and generates noise

Cause The volume level for the video source may be too high.

Solution Lower the volume on the video source. If you can't control the volume level of your source, you may need to resample the original source to lower the audio output.

Solution Make sure you're using the correct connectors, all connectors are properly fastened, and that all power cables are firmly in place.

Problem **Inconsistent sound quality between video files**

Cause The audio level for the original video sources differs.

Solution Resample the original video sources to normalize the audio output between sources.

Solution Your source may be able to normalize audio levels automatically. For more information, see your source documentation.

Product information

Specifications

Maevex Encoder

	Maevex 5150 Encoder
Video input connector	1× HDMI
Video output connectors	1× HD-15 (VGA) + 1× HDMI
Audio input connector	1× mini-stereo jack
Audio output connector	1× mini-stereo jack
Network connector	1× RJ45
Video stream output	MPEG-4 Part 10 / AVC (H.264)
Supported resolutions *†	1920 × 1200, 1920 × 1080, 1680 × 1050, 1600 × 1200, 1600 × 900, 1440 × 900, 1400 × 1050, 1360 × 768, 1280 × 1024, 1280 × 960, 1280 × 720, 1024 × 768, 800 × 600, 720 × 576, 720 × 480, and 640 × 480
Additional supported HDMI resolutions †	1080p50, 1080p30, 720p50, and 576p50
Dimensions	21.59 cm × 2.59 cm × 10.16 cm / 8.50" × 1.02" × 4.00"
Certifications	Class B: ACMA, CE, FCC, VCCI, KCC

* All supported resolution have a vertical refresh rate of 60 Hz.

† When using a display resolution equal to or higher than 1280×720p60, we recommend you use certified high-speed HDMI cables.

Maevex Decoder

	Maevex 5150 Decoder
Video output connectors	1× HDMI
Audio output connector	1× mini-stereo jack
Network connectors	2× RJ45
Video stream output	MPEG-4 Part 10 / AVC (H.264)
Supported resolutions *†	1920 × 1200, 1920 × 1080, 1680 × 1050, 1600 × 1200, 1600 × 900, 1440 × 900, 1400 × 1050, 1360 × 768, 1280 × 1024, 1280 × 960, 1280 × 720, 1024 × 768, 800 × 600, 720 × 576, 720 × 480, and 640 × 480
Additional supported HDMI resolutions †	1080p50, 1080p30, 720p50, and 576p50
Dimensions	12.83 cm × 2.59 cm × 10.90 cm / 5.05" × 1.02" × 4.29"
Certifications	Class B: ACMA, CE, FCC, VCCI, KCC

* All supported resolution have a vertical refresh rate of 60 Hz.

† When using a display resolution equal to or higher than 1280×720p60, we recommend you use certified high-speed HDMI cables.

Power consumption and supply voltage

	Maevex 5150 Encoder
Power requirements	5V DC, maximum 5 A (5 A fuse for overcurrent protection)
Power connector	DIN 4 female (4-pin)
Power consumption	Maximum: 9 W * Minimum: 6 W

* With a stream of 1080p60 @25Mb/s

	Maevex 5150 Decoder
Power requirements	5V DC, maximum 5 A (5 A fuse for overcurrent protection)
Power connector	DIN 4 female (4-pin)
Power consumption	Maximum: 6 W * Minimum: 4.5 W

* With a stream 1080p60 @25Mb/s

	External power supply
Input AC voltage range	100 to 240 V AC
Input frequency	50-60 Hz
Input connector	IEC 60320-C8
Output voltage	+5 V DC
Output connector	DIN 4 male (4-pin) with lock
Maximum power consumption	15 W

Audio

HDMI	
Stereo audio	2 channel L-PCM
Bits per sample	16 or 24 bits per channel, 2 channel (Left and Right)
Sampling rates supported	32, 44.1, or 48 kHz

Analog	
Audio connector type	3.5 mm stereo audio jacks
Input sensitivity (L/R)	0.7 Vrms

Environmental

Temperature, operational	0 to 45 ºC (32 to 113 ºF)
Temperature, non-operational storage and transportation	-40 to 55 ºC (-40 to 131 ºF)
Humidity, operational (indoor)	20 to 80% (non-condensing)
Humidity, non-operational storage and transportation	5% to 95% (non-condensing)
Atmospheric pressure, operational	650hPa (3,580 meters / 11,745 feet) to 1013hPa (0 meters / 0 feet)
Atmospheric pressure, non-operational and transportation	192hPa (12,000 meters / 39,370 feet) to 1020hPa (-50 meters / -164 feet)
Estimated MTBF (Mean Time Between Failures)	Encoder unit: 135.05 years @ 40 ºC (excluding power supply) Decoder unit: 164.81 years @ 40 ºC (excluding power supply) Power supply: 11.45 years @ 25 ºC (with full load)

Networking support

- IPv4 support
- 10/100/1000 Base-T Ethernet
- Streaming protocol: RTSP (RTP, RTCP, and UDP) unicast and multicast
- Required command and control network protocols: TCP/IP, UPnP, and HTTPS
- CAT 5, 5e, 6, and 7 cables

Notes

- Your Matrox product supports EDID v1.3 (monitor settings) and DDC-2B (Plug-and-Play monitor).
- The display resolutions available depend on your monitor and PowerStream settings. For information on the capabilities of your monitor, see your monitor documentation.
- If a decoder uses a stream from an encoder located on a different subnet, the quality of the video output from the decoder may be degraded.
- When using VLC, multicast is only supported in Windows 8.
- Playback of content with different audio sampling rates may cause issues with third-party players (such as VLC).
- Network performance and features may vary depending on your networking equipment. For more information, contact your networking equipment vendor.
- When transmitting in multicast on a large network, we recommend using a router with IPv4 multicast addressing support and switches with IGMP v2 support.
- Video capture and streaming of protected content isn't supported.
- Slow response from certain routers may cause a slow PowerStream startup.

Digital flat panel and source compatibility

- HDMI compatible
- DVI 1.0 compatible (using HDMI to DVI-D adapter)

Appendix A – Providing adequate airflow

Because the body of your unit is used to disperse heat, it requires adequate airflow to ensure proper operation and to prevent damage. The following provides guidelines for effective airflow around your unit.

- **Leave the proper amount of room around your unit** – To prevent airflow restriction, we recommend allowing ***at least*** 0.75 inches (1.91 cm) of clearance between the top of your unit and the mounting surface. More space may be required depending on your environment.

  Always operate or mount your units rightside up. When your unit is resting on a plain surface, make sure your unit is resting on the original rubber feet.

- **Operate your unit in a well ventilated location** – Don't operate your unit near a heat source or restrict airflow to your unit (for example, by operating your unit inside a desk cabinet).

- **Monitor your ambient temperatures** – Make sure the ambient temperature doesn't exceed the maximum recommended temperatures.

For more information on supported operating temperatures, see "Environmental", page 40.

Appendix B – Mounting your units

This section provides guidelines for mounting your Maevex units in rack mounts or on VESA mounts using one or multiple mounting kits available from Matrox: the rack mounting kit and the angled bracket kit.

Mounting guidelines

To prevent damage to your Matrox hardware, read the following guidelines before mounting your Matrox hardware:

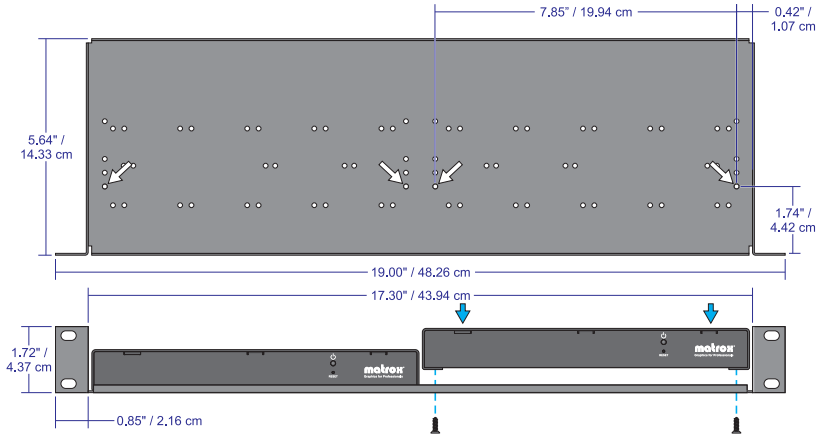
- **Mounting shelf only** – To install your mounting shelf, fasten it to the rack as per your rack's instructions. Head screws compatible with most rack mounts are provided.
- **Mounting shelf only** – The mounting shelf has existing holes for your Maevex unit that allow the shelf to be mounted facing forward or backward.
- Use a hand screwdriver to carefully tighten each screw. Make sure not to overtighten the screws.
- Don't stack anything directly over the unit.
- Make sure the cables connected to your unit are properly secured and that no tension is applied to them.
- Make sure the ambient temperature doesn't exceed the maximum recommended temperatures. For more information, see "Product information", page 38.

Once your Maevex unit is mounted, you can connect your system, monitors, and devices to your unit.

Mounting your Maevex encoder or decoder units horizontally

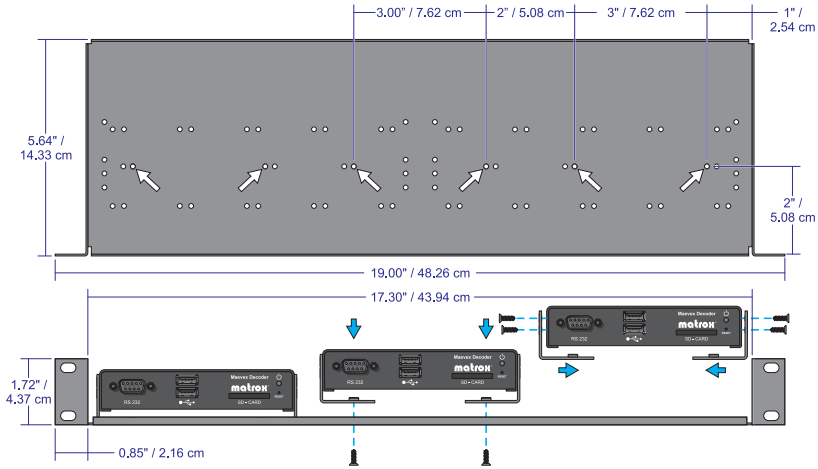
Using the mounting shelf kit in a rack mount, you can mount two (2) Maevex encoder units or three (3) decoder units horizontally on a single shelf.

Maevex encoder



- Your Maevex encoder unit has two (2) mounting holes under its casing. Use two (2) 6 mm M3 flat-head screws (included with your mounting shelf) to secure each unit. You need to remove the four (4) rubber pads under your encoder unit before you can secure your unit to the shelf.

Maevex decoder

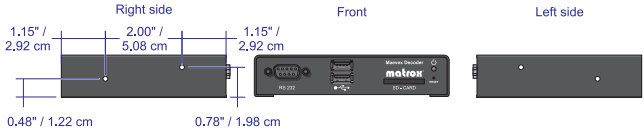


- Your decoder unit has two (2) mounting holes on each side. To mount your decoder horizontally, you need two (2) angled brackets (kit sold separately).
- To secure the angled brackets to your unit and to the shelf, use six (6) 6 mm M3 flat-head screws (included in your kit).

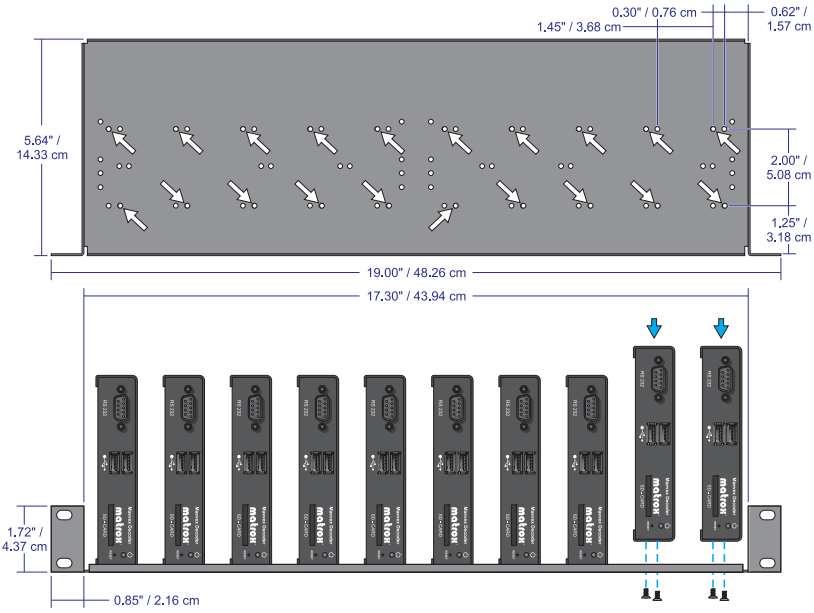
Mounting your Maevex decoder units vertically

Using the mounting shelf kit in a rack mount, you can mount ten (10) Maevex decoder units vertically on a single shelf.

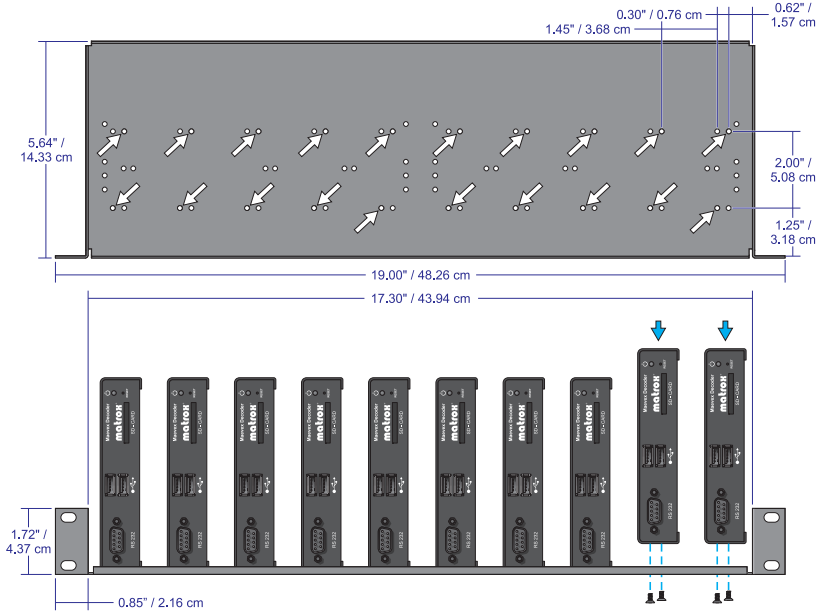
- Mounting Maevex decoder units vertically requires the height of a 3U shelf.
- Your Maevex decoder unit has two (2) mounting holes on each side. Use two (2) 6 mm M3 flat-head screws (sold separately) to secure each unit to the mounting shelf. The holes used to secure the unit to the shelf differ depending on which side (left or right) the unit is mounted.



Left side mount



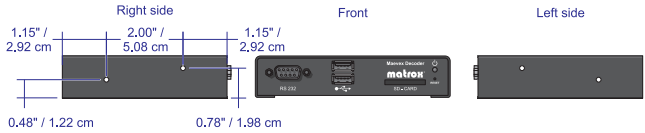
Right side mount



Mounting your Maevex decoder units on VESA mounts

You can mount your Maevex decoder units on VESA compliant mounts (75, 100, or 200 mm) or on the back of devices with VESA compliant mounting holes.

- To mount your decoder unit on a VESA mount, you need two (2) angled brackets (kit sold separately).
- Your Maevex decoder unit has two (2) mounting holes on each side. Use four (4) 6 mm M3 screws (included in your kit) to secure each unit to the angled brackets.

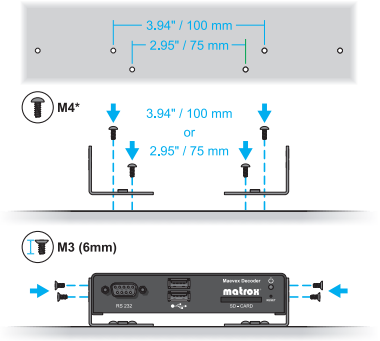


- If a decoder is attached to a VESA mount, no other device can use that VESA mount.

Mounting to a 75 or 100 mm mounting space

To mount your decoder on a 75 or 100 mm mounting space:

- Attach the brackets to your VESA mount before attaching your brackets to your unit.
- Use two (2) M4 screws (sold separately) to attach your brackets to the mount.
- Use four (4) 6 mm M3 flat-head screws (included in your kit) to attach your brackets to your unit.

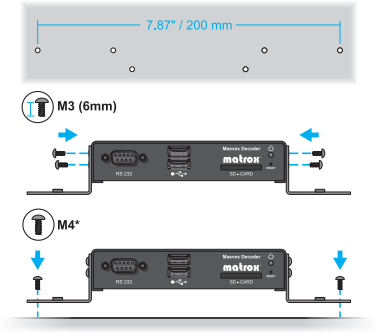


* sold separately

Mounting to a 200 mm mounting space

To mount your decoder to a 200 mm mounting space:

- Attach your brackets to your unit before attaching to your VESA mount.
- Use four (4) 6mm M3 pan-head screws (included in your kit) to attach your brackets to your unit.
- Use two (2) M4 screws (sold separately) to attach your brackets to the mount.



* sold separately

Customer support

Matrox Web

Our Web site has product literature, press releases, technical material, a sales office list, trade show information, and other relevant material. Visit the Matrox Graphics Web site at www.matrox.com/graphics.

Technical support

Matrox values your business and offers professional support for your Matrox product.

If your product was purchased through a Matrox dealer, contact your dealer for product support. This is the quickest and most effective method of technical assistance. Your dealer is familiar with your complete system.

If your product was purchased through Matrox, contact your Matrox representative or visit our technical support Web site at www.matrox.com/graphics/support.

Information we need

Please give a complete description of the problem, and include:

- Matrox product serial number, model number, revision number, and firmware number.
- Computer brand and model name.
- Graphics card manufacturer, model number, revision number, BIOS number, driver type and version.
- Monitors brand and model name.
- Operating system, version, and service pack.

Firmware package

A more recent firmware package may support more features and may offer increased capabilities. To obtain the latest firmware package, see the Matrox Web site (www.matrox.com/maevexsw).

View your warranty information

Matrox makes warranty information available on the Matrox site (http://www.matrox.com/hr/en/company/legal/en/warranty).

Register your Matrox product

Please register online (www.matrox.com/graphics/en/registration) to be eligible for customer support, new product announcements, and information on special offers and upcoming events.

USA

FCC Compliance Statement

Remark for the Matrox hardware products supported by this guide This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment causes harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: • Reorient or relocate the receiving antenna • Increase the separation between the equipment and receiver • Connect the equipment into an outlet on a circuit different from that to which the receiver is connected • Consult the dealer or an experienced radio/TV technician for help.

WARNING Changes or modifications to this unit not expressly approved by the party responsible for the compliance could void the user's authority to operate this equipment.

Declaration of conformity of a Class B digital device according to the FCC rules

We, the Responsible Party Matrox, 625 State Route 3, Unit B, Plattsburg, NY 12901 • Telephone: (514) 822-6000 (extension 2026) • Attention: Conformity Group Matrox

Declaration The Matrox hardware products supported by this guide comply with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) these devices may not cause harmful interference, and (2) these devices must accept any interference received, including interference that may cause undesired operation. Any question regarding this declaration should be forwarded to the above coordinates.

CANADA

(English) Industry Canada Compliance Statement

Remark for the Matrox hardware products supported by this guide These digital devices do not exceed the Class B limits for radio noise emission from digital devices set out in the Radio Interference Regulation of Industry Canada.

(Français) Conformité avec les exigences du ministère de l'Industrie Canada

Remarque sur les produits matériels Matrox couverts par ce guide Ces appareils numériques n'émettent aucun bruit radioélectrique dépassant les limites applicables aux appareils numériques de Classe B prescrites dans le Règlement sur le brouillage radioélectrique édicté par Industrie Canada.

JAPAN

VCCI Compliance Statement

Remark for the Matrox hardware products supported by this guide This is a Class B product based on the standard of the Voluntary Control Council for Interference from Information Technology Equipment (VCCI). If this is used near a radio or television receiver in a domestic environment, it may cause radio interference. Install and use the equipment according to the instruction manual.

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取扱説明書に従って正しい取り扱いをして下さい。 VCCI－B

KOREA

KCC 전자파 적합 등록 안내 (Class B)

이 기기는 가정용 (B 급) 으로 전자파적합등록을 한 기기로 주거 지역에서는 물론 모든 지역에서 사용할 수 있습니다 .

EUROPE

(English) European user's information – Declaration of Conformity

Remark for the Matrox hardware products supported by this guide These devices comply with EC Directive 2004/108/EC for a Class B digital device. They have been tested and found to comply with EN55022/CISPR22 and EN55024/CISPR24. In a domestic environment these products may cause radio interference in which case the user may be required to take adequate measures. These products have been tested in a typical class B compliant host system. It is assumed that these products will also achieve compliance in any class B compliant system.

(Français) Informations aux utilisateurs Européens – Déclaration de conformité

Remarque sur les produits matériels Matrox couverts par ce guide Ces unités sont conformes à la directive communautaire 2004/108/EC pour les unités numériques de classe B. Les tests effectués ont prouvé qu'elles sont conformes aux normes EN55022/CISPR22 et EN55024/CISPR24. Le fonctionnement de ces produits dans un environnement résidentiel peut causer des interférences radio, dans ce cas l'utilisateur peut être amené à prendre les mesures appropriées. Ces produits ont été testés dans un système hôte typique compatible classe B. On suppose qu'ils présenteront la même compatibilité dans tout système compatible classe B.

(Deutsch) Information für europäische Anwender – Konformitätserklärung

Anmerkung für die Matrox Hardware-Produktunterstützung durch dieses Handbuch Diese Geräte entsprechen EC Direktive 2004/108/EC für ein digitales Gerät Klasse B. Sie wurden getestet und entsprechen demnach EN55022/CISPR22 und EN55024/CISPR24. In einer Wohnumgebung können diese Produkte Funkinterferenzen erzeugen, und der Benutzer kann genötigt sein, entsprechende Maßnahmen zu ergreifen. Diese Produkt wurden in einem typischen, der Klasse B entsprechenden, Host-System getestet. Es wird davon ausgegangen, daß diese Produkte auch in jedem Klasse B entsprechenden System entsprechend funktionieren.

(Italiano) Informazioni per gli utenti europei – Dichiarazione di conformità

Nota per i prodotti hardware Matrox supportati da questa guida Questi dispositivi sono conformi alla direttiva CEE 2004/108/EC relativamente ai dispositivi digitali di Classe B. Sono stati provati e sono risultati conformi alle norme EN55022/CISPR22 e EN55024/CISPR24. In un ambiente domestico, questi prodotti possono causare radiointerferenze, nel qual caso all'utente potrebbe venire richiesto di prendere le misure adeguate. Questi prodotti sono stati provati in un tipico sistema host conforme alla classe B. Inoltre, si dà per scontato che questi prodotti acquisiranno la conformità in qualsiasi sistema conforme alla classe B.

(Español) Información para usuarios europeos – Declaración de conformidad

Observación referente a los productos de hardware de Matrox apoyados por este manual Estos dispositivos cumplen con la directiva de la CE 2004/108/EC para dispositivos digitales de Clase B. Dichos dispositivos han sido sometidos a prueba y se ha comprobado que cumplen con las normas EN55022/CISPR22 y EN55024/CISPR24. En entornos residenciales, estos productos pueden causar interferencias en las comunicaciones por radio; en tal caso el usuario deberá adoptar las medidas adecuadas. Se supone que estos productos cumplirán también con las normas en cualquier sistema que responda a los requisitos de la clase B.

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EUROPE

(English) European user's information – Directive on Waste Electrical and Electronic Equipment (WEEE)

Please refer to the Matrox Web site (www.matrox.com/environment/en/weee) for recycling information.

(Français) Informations aux utilisateurs Européens – Règlementation des déchets d'équipements électriques et électroniques (DEEE)

Se référer au site Web de Matrox (www.matrox.com/environment/en/weee) pour l'information concernant le recyclage.

(Deutsch) Information für europäische Anwender – Europäische Regelungen zu Elektro- und Elektronikaltgeräten (WEEE)

Bitte wenden Sie sich an der Matrox-Website (www.matrox.com/environment/en/weee) für Recycling-Informationen.

(Italiano) Informazioni per gli utenti europei – Direttiva sui rifiuti di apparecchiature elettriche ed elettroniche (RAEE)

Si prega di riferirsi al sito Web Matrox (www.matrox.com/environment/en/weee) per le informazioni di riciclaggio.

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